

## Los Alamos to tackle modernizing energy grid in DOE-wide Laboratory consortium

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## **Grid modernization initiative releases multi-year plan** with \$220 million in funds

LOS ALAMOS, N.M., Jan. 14, 2016—Under a new, \$220 million U.S. Department of Energy grid-modernization program, Los Alamos National Laboratory scientists will collaborate with other laboratories, academia, and state and local agencies on critical research and development in a number of key areas, such as advanced electrical storage systems and integrating clean energy into the grid. Up to \$35.25 million in research funding could come to Los Alamos and its partners.

"Los Alamos scientists will support grid design and analysis for resilience, control theory, and modeling extreme events and their consequences," said Alan Bishop, principal associate director for Science, Technology, and Engineering at Los Alamos.

"These are fields in which Los Alamos has proven expertise and in-depth modeling tools to address these complex questions. Critical infrastructure analysis and in-depth emergency planning to protect the nation and its physical and economic security are part of our Laboratory mission," he said.

During a visit earlier today to a utility control center in Miami, FL, Energy Secretary Ernest Moniz announced the release of DOE's comprehensive new Grid Modernization Multi-Year Program Plan, a blueprint for modernizing the grid. The Secretary also announced the award of up to \$220 million over three years, subject to congressional appropriations, to DOE's National Laboratories and partners to support critical research and development in advanced storage systems, clean energy integration, standards and test procedures, and a number of other key grid modernization areas. Additional programs, initiatives, and funding opportunities related to the Grid Modernization Initiative will be announced in the coming days.

"Modernizing the U.S. electrical grid is essential to reducing carbon emissions, creating safeguards against attacks on our infrastructure, and keeping the lights on," said Secretary Moniz. "Our Quadrennial Energy Review and Quadrennial Technology Review identified needs and opportunities to invest in the grid. This public-private partnership among our National Laboratories, industry, academia, and state and local government agencies will help us further strengthen our ongoing efforts to improve our electrical infrastructure so that it is prepared to respond to the nation's energy needs for decades to come."

"The Grid Modernization Laboratory Consortium is an important new model for engaging the collective strength of the laboratory system in addressing challenges to our nation's energy security," Bishop noted, "Los Alamos looks to strengthen our capabilities through partnering for broader impact, and we are pleased to participate as part of the consortium."

The Grid Modernization Initiative represents a comprehensive DOE effort to help shape the future of our nation's grid and solve the challenges of integrating conventional and renewable sources with energy storage and smart buildings, while ensuring that the grid is resilient and secure to withstand growing cyber security and climate challenges. Today's announcements fall under the Grid Modernization Initiative's framework.

- The Grid Modernization Multi-Year Program was developed by DOE in close collaboration with a wide range of key external partners. The program lays out a blueprint for the Department's research, development, and demonstration agenda to enable a modernized grid, building on concepts and recommendations from DOE's recently released Quadrennial Energy Review and Quadrennial Technology Review.
- The up to \$220 million in research and development funding falls under the Grid Modernization Laboratory Consortium. The consortium involves 14 DOE National Laboratories and dozens of industry, academia, and state and local government agency partners across the country. These funds are being awarded in response to a challenge to the National Laboratories to establish a comprehensive grid-related research and development effort to address a range of emerging challenges and opportunities in the nation's power grid.

Find more information on the <u>Grid Modernization Initiative</u> at Energy.gov and on the selected National Lab partnership projects online.

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